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Edwards

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(54) **SEGMENTED POWER TRANSISTOR**

29/66303;H01L 29/20; H01L 23/5386;

H01L 27/088; H01L 27/0207; H01L

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24/09; H01L 31/119; H01L 23/62; H02H
9/00

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See application file for complete search history.

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(58) **Field of Classification Search**

CPC H01L 29/41758; H01L 51/445; H01L

(57)

ABSTRACT

A power transistor includes multiple substantially parallel transistor fingers, where each finger includes a conductive source stripe and a conductive drain stripe. The power transistor also includes multiple substantially parallel conductive connection lines, where each conductive connection line connects at least one source stripe to a common source connection or at least one drain stripe to a common drain connection. The conductive connection lines are disposed substantially perpendicular to the transistor fingers. At least one of the source or drain stripes is segmented into multiple portions, where adjacent portions are separated by a cut location having a higher electrical resistance than remaining portions of the at least one segmented source or drain stripe.

15 Claims, 20 Drawing Sheets

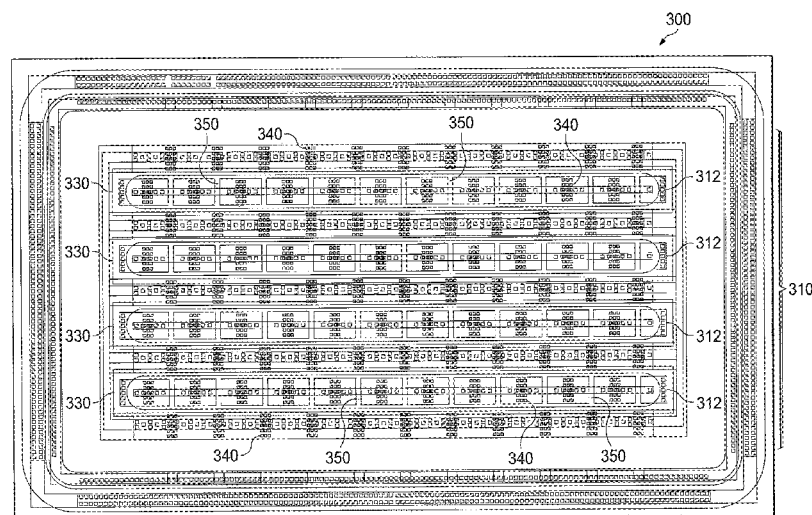


FIG. 3B